WHAT IS CLAIMED IS:

- 1. An isolated nucleic acid that encodes a zinc finger-containing protein, comprising:
- (a) a nucleotide sequence selected from the group consisting of:
 - (i) SEQ ID NO:1, SEQ ID NO:3027, SEQ ID NO:4407, SEQ ID NO:5770; and SEQ ID NO:6938;
 - (ii) the complement of the sequences set forth
 in (i);
 - (iii) the nucleotide sequence of SEQ ID NO: 2, SEQ ID NO:3028, SEQ ID NO:4408, and SEQ ID NO:5771;
 - (iv) a degenerate variant of the sequences set
 forth in (iii);
 - (v) the complement of the sequences set forth
 in (iii) and (iv); and
 - (vi) the nucleotide sequence of the cDNAs
 having ATCC accession nos. _____ (MDZ3),
 _____ (MDZ4), _____ (MDZ7), and
 _____ (MDZ12a and MDZ12b); or
- (b) a nucleotide sequence selected from the group
 consisting of:
 - (i) a nucleotide sequence that encodes a polypeptide having the sequence of SEQ ID NO:3, SEQ ID NO:3029, SEQ ID NO:4409, SEQ ID NO:5772, and SEQ ID NO:6940;
 - (ii) a nucleotide sequence that encodes a polypeptide having the sequence of SEQ ID NO:3, SEQ ID NO:3029, SEQ ID NO:4409, SEQ ID NO:5772, SEQ ID NO:6939, and SEQ ID

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NO:6940, with conservative amino acid substitutions; and

(iii) the complement of the sequences set forth
 in (i) and (ii),

wherein said isolated nucleic acid comprising a nucleotide sequence selected from group (b) is no more than about 100 kb in length.

- 2. The isolated nucleic acid of claim 1 wherein said nucleic acid, or the complement of said nucleic acid, encodes a polypeptide having sequence-specific DNA binding activity.
- 3. The isolated nucleic acid of claim 1, wherein said nucleic acid, or the complement of said nucleic acid, is expressed in testis.
 - 4. A nucleic acid probe, comprising:
 - (a) the nucleic acid of claim 1; or
- (b) at least 17 contiguous nucleotides of SEQ ID NO:4, SEQ ID NO:3030, SEQ ID NO:3034, SEQ ID NO:4410, SEQ ID NO:4411, SEQ ID NO:5773, or SEQ ID NO:6941,

wherein said probe according to (b) is no longer than about 100 kb in length.

- 5. The probe of claim 4, wherein said probe is detectably labeled.
- 6. The probe of claim 4, attached to a substrate.
- 7. A microarray, wherein at least one probe of said array is a probe according to claim 4.

- 8. The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule is operably linked to one or more expression control elements.
- 9. A replicable vector comprising a nucleic acid molecule of claim 1.
- 10. A replicable vector comprising an isolated nucleic acid molecule of claim 8.
- 11. A host cell transformed to contain the nucleic acid molecule of any one of claims 1 or 8 10, or the progeny thereof.
- 12. A method for producing a polypeptide, the method comprising: culturing the host cell of claim 11 under conditions in which the protein encoded by said nucleic acid molecule is expressed.
- 13. An isolated polypeptide produced by the method of claim 12.
 - 14. An isolated polypeptide, comprising:
- (a) an amino acid sequence selected from the group consisting of:
 - (i) SEQ ID NO:3, SEQ ID NO:3029, SEQ ID NO:4409, SEQ ID NO:5772, SEQ ID NO:6939, and SEQ ID NO:6940; and
 - (ii) the amino acid sequence of the cDNAs
 having ATCC accession nos. { };
- (b) an amino acid sequence having at least 65% amino acid sequence identity to that of (a)(i) or (a)(ii);

- (c) an amino acid sequence according to (a)(i) or (a)(ii) in which at least 95% of deviations from the sequence of (a)(i) or (a)(ii) are conservative substitutions; or
- (d) a fragment of at least 8 contiguous amino acids of any of (a) (c).
- 15. A fusion protein, said fusion protein comprising a polypeptide of claim 14 fused to a heterologous amino acid sequence.
- 16. The fusion protein of claim 15, wherein said heterologous amino acid sequence is a detectable moiety.
- 17. The fusion protein of claim 16, wherein said detectable moiety is fluorescent.
- 18. The fusion protein of claim 15, wherein said heterologous amino acid sequence is an Ig Fc region.
- 19. An isolated antibody, or antigen-binding fragment or derivative thereof, the binding of which can be competitively inhibited by a polypeptide of claim 14.
- 20. A transgenic non-human animal modified to contain the nucleic acid molecule of any one of claims 1 or 8-10.
- 21. A transgenic non-human animal unable to express the endogenous orthologue of the nucleic acid molecule of claim 1.
 - 22. A method of identifying agents that modulate

the expression of MDZ3, MDZ4, MDZ7, or MDZ12, the method comprising:

contacting a cell or tissue sample believed to express MDZ3, MDZ4, MDZ7, or MDZ12 with a chemical or biological agent, and then

comparing the amount of MDZ3, MDZ4, MDZ7, or MDZ12 expression in said cell or tissue sample with that of a control,

changes in the amount relative to control identifying an agent that modulates expression of MDZ3, MDZ4, MDZ7, or MDZ12.

23. A method of identifying agonists and antagonists of MDZ3, MDZ4, MDZ7, or MDZ12, the method comprising:

contacting a cell or tissue sample believed to express MDZ3, MDZ4, MDZ7, or MDZ12 with a chemical or biological agent, and then

comparing the activity of MDZ3, MDZ4, MDZ7, or MDZ12 with that of a control, $\label{eq:mdz3}$

increased activity relative to a control identifying an agonist, decreased activity relative to a control identifying an antagonist.

- 24. A purified agonist of the polypeptide of claim 14.
- 25. A purified antagonist of the polypeptide of claim 14.
- 26. A method of identifying a specific binding partner for a polypeptide according to claim 14, the method comprising:

contacting said polypeptide to a potential binding partner; and

determining if the potential binding partner binds to said polypeptide.

- 27. The method of claim 26, wherein said contacting is performed *in vivo*.
- 28. A purified binding partner of the polypeptide of claim 14.
- 29. A method for detecting a target nucleic acid in a sample, said target being a nucleic acid according to claim 1, the method comprising:
- a) hybridizing the sample with a probe comprising at least 17 contiguous nucleotides of a sequence complementary to said target nucleic acid in said sample under high stringency hybridization conditions, and
- b) detecting the presence or absence, and optionally the amount, of said binding.
- 30. A method of diagnosing a disease caused by mutation in MDZ3, MDZ4, MDZ7 or MDZ12, comprising:

detecting said mutation in a sample of nucleic acids that derives from a subject suspected to have said disease.

31. A method of diagnosing or monitoring a disease caused by altered expression of MDZ3, MDZ4, MDZ7 or MDZ12, comprising:

determining the level of expression of MDZ3, MDZ4, MDZ7, or MDZ12 in a sample of nucleic acids or proteins that derives from a subject suspected to have said disease,

alterations from a normal level of expression providing diagnostic and/or monitoring information.

- 32. A diagnostic composition comprising the nucleic acid of claim 1, said nucleic acid being detectably labeled.
- 33. The diagnostic composition of claim 32, wherein said composition is further suitable for *in vivo* administration.
- 34. A diagnostic composition comprising the polypeptide of claim 14, said polypeptide being detectably labeled.
- 35. The diagnostic composition of claim 34, wherein said composition is further suitable for *in vivo* administration.
- 36. A diagnostic composition comprising the antibody, or antigen-binding fragment or derivative thereof, of claim 19.
- 37. The diagnostic composition of claim 36, wherein said antibody or antigen-binding fragment or derivative thereof is detectably labeled.
- 38. The diagnostic composition of claim 37, wherein said composition is further suitable for *in vivo* administration.

- 39. A pharmaceutical composition comprising the nucleic acid of claim 1 and a pharmaceutically acceptable excipient.
- 40. A pharmaceutical composition comprising the polypeptide of claim 14 and a pharmaceutically acceptable excipient.
- 41. A pharmaceutical composition comprising the antibody or antigen-binding fragment or derivative thereof of claim 19 and a pharmaceutically acceptable excipient.
- 42. A pharmaceutical composition comprising the agonist of claim 24 and a pharmaceutically acceptable excipient.
- 43. A pharmaceutical composition comprising the antagonist of claim 25 and a pharmaceutically acceptable excipient.
- 44. A method for treating or preventing a disorder associated with decreased expression or activity of MDZ3, MDZ4, MDZ7, or MDZ12, the method comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of any of claims 39, 40 or 42.
- 45. A method for treating or preventing a disorder associated with increased expression or activity of MDZ3, MDZ4, MDZ7 or MDZ12, the method comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 41 or 43.

- 46. A method of modulating the expression of a nucleic acid according to claim 1, the method comprising: administering an effective amount of an agent which modulates the expression of a nucleic acid according to claim 1.
- 47. A method of modulating at least one activity of a polypeptide according to claim 14, the method comprising:

administering an effective amount of an agent which modulates at least one activity of a polypeptide according to claim 14.